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SECOND UNITED NATIONS CONFERENCE ON THE LEAST DEVELOPED COUNTRIES:

Preparatory process for the Conference

TECHNICAL CO-OPERATION IN THE DEVELOPMENT OF THE LEAST DEVELOPED COUNTRIES

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TECHNICAL COOPERATION IN THE DEVELOPMENT OF THE LEAST DEVELOPED COUNTRIES

REPORT FOR THE

SECOND UNITED NATIONS CONFERENCE

ON THE

LEAST DEVELOPED COUNTRIES

UNITED NATIONS DEVELOPMENT PROGRAMME

TECHNICAL COOPERATION IN THE DEVELOPMENT OF THE LEAST DEVELOPED COUNTRIES

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TECHNICAL COOPERATION IN THE DEVELOPMENT OF THE LEAST DEVELOPED COUNTRIES

INTRODUCTION

This report on Technical Cooperation (TC) is prepared by the UNDP in support of its participation in the Second United Nations Conference on the Development of the Least Developed Countries (LDCs). It reflects the recognition of TC as a key development resource and the growing concerns as to its effectiveness. Drawing on a variety of assessments and studies, the report provides a brief summary of the principal dimensions of TC. It reviews the role of Technical Cooperation in increasing national capacities for development and identifies possible actions by LDC and donor governments for improving Technical Cooperation programs. (The UNDP's role in the LDCs is described in a separate paper, "Development in the 1980s and Proposals for the 1990s")

TECHNICAL COOPERATION DEFINED

Technical Cooperation according to UNDP's recommended definition,[1]/ is defined as the provision of resources aimed at the transfer of technical and managerial skills and know-how or of technology for the purpose of building up national capacity to undertake development activities. Technical Cooperations includes resources in form of personnel, training and equipment necessary to carry out the activities specified.

Technical Cooperation may be divided into two categories: (i) Investment Related Technical Cooperation which comprises the provision of resources directly aimed at strengthening the capacity

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[1]/ Draft Instruction Manual for the Development Cooperation Report, UNDP, 1989. Recent technical discussions between UNDP and OECD are leading to common definitions for technical cooperation and technical assistance - free standing and investment related - to permit greater consistency in statistical reporting. The definitions used here are those proposed by the UNDP; the substance of the UNDP and OECD definitions are the same.

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to execute specific investment projects and (ii) Free Standing Technical Cooperation which is provided per se, regardless of any parallel investment project.

This definition establish that the aim of TC is the promotion of self-reliance and that TC is, in any particular situation, a temporary activity - even if continued for many years - to be terminated when the self-reliance objective has been achieved. Self-reliance means that LDC institutions have the capacity to take the lead, define needs, select and generate technologies, and adapt and apply them to local circumstances. Linkages with other institutions in the world with common interests and knowledge continue to be essential for quality, relevance and continued intellectual growth.

TC (the provision of expertise, training and related equipment) is one form of input in the development process just as financial aid, food and other commodity aid, and equipment are inputs. The development objective determines the choice of inputs and their allocation. Not all TC is developmental, i.e. an investment in increased national human and institutional capacities. Much of the TC provided to LDCs is not focused on building these capacities, but rather on filling operations tasks. TC, in its operations role, serves to maintain and supplement existing functions or meet short term staff needs such as during an emergency. In conjunction with capital aid, TC meets the one-time requirements of feasibility studies, design and construction services; it may not lead to increased professional and institutional capacities.

A review of the effectiveness of TC will need to take into account both its operations role and, more important, its contribution, as a long term investment in capacity building, to the achievement of specific development objectives. The criteria for judging the performance of TC projects relate to their efficiency, effectiveness, impact, and sustainability in achieving these objectives.

With these definitions of TC in mind, what have been the funding levels for TC? What is its role in national development? What are the issues of effectiveness? What actions can LDC and donor governments take to improve TC performance? The discussions of these questions in the next sections bring out the importance of TC as a development resource for the LDCs which requires increased attention in donor and LDC resource management.

I.

TECHNICAL COOPERATION:

FUNDING AND ALLOCATIONS

Technical Cooperation is a major resource for LDC development. In 1987, the 42 Least Developed Countries received $2.4 billion in official Technical Cooperation grants (expenditures). This figure, based on OECD/DAC statistics,[2]/ understates the full extent of TC activity since it does not include TC as part of capital aid (IRTC) and volunteers and NGOs, not government financed. It does not include assistance from the Members of the Council for Mutual Economic Assistance (CMEA), which is substantial in some of the LDCs. The UNDP's DCRs, based on data collected in the LDCs, also indicate that the OECD/DAC figures understate the levels of TC.

The $2.4 billion for TC is approximately 22% of total net Official Development Assistance (ODA) to the LDCs. For 15 LDCs, TC is particularly large at 30% or higher. TC funding is an important dimension of LDC economies for many of the LDCs - 5% of GNP or higher in 22 LDCs. Generally, the smaller countries received a higher per capita share of the TC funding for LDCs than those with large populations. LDCs received about 20% of the total TC funding for all developing countries.

Although the data do not permit firm conclusions on trends, the figures suggest a substantial increase in TC for the LDCs over the long term. In real terms (1986 base), the annual average funding for TC in the period 1980-87 was about 80% higher than the annual average for 1971-79 period (See Table I).

Sector Allocations: Table IV (see Annexes) provides a breakdown for 1987 of TC by value for the various sectors in 30 LDCs for which data are available. This picture is somewhat obscured by the large percentages assigned to General Development Issues and to "Other".

Agriculture, forestry, and fisheries were first priority in the use of TC in 19 LDCs. About half of these countries show, in 1987, 20% or more of their TC in this sector. The highest concentrations were in Burkina Faso and Sao Tome Principe with 50% of TC allocated to agriculture. Cape Verde and Niger (40%), Burundi, Uganda and Guinea Bissau (31%), Gambia and Haiti (35%), West Somoa (30%) also had high concentrations of TC in agriculture.

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[2]/ Sources: "Geographic Distribution of Financial Flows to Developing Countries: Disbursements, Commitments, Economic Indicators. 1984/1987", OECD, Paris, 1989. Also volumes for 1983/1986, 1979/1982, 1978/1981, 1971/1977. "Socio-Economic, Monetary and Resources Tables", UNDP, 1989.

Education was the highest priority for TC in 8 LDCs - Benin (31%), Comoros, Lesotho, Central African Republic (28%), Chad (29%), Djibouti (45%), and Yemen (34%).

Health was a first priority sector for TC in two countries: Malawi (25%) and Sierra Leone (28%).

Agriculture, Education, Health and General Development issues were, generally, important among the 30 LDCs as second priorities in the allocations of TC funding.

TC Components: Statistics on the breakdown equipment of TC funding by its main components (experts, training, equipment) are not available to permit useful aggregations.- But the impression from available information and selected country data suggest that the numbers of experts in the LDCs, particularly in Africa, are exceptionally large. A study of TC in Sub-Saharan Africa by the Nordic Countries reports that "it is estimated that some 80,000 resident non-nationals are working on technical assistance programmes in the public and parastatal sectors of the 40 countries in sub-Saharan Africa." (Nordic, 1988). For eleven of the smaller LDCs (in Africa) with 1988 data (see Annex IV), the total number of technical cooperation personnel is estimated to be about 4157, not including volunteers and NGO personnel. Figures on allocations for training and equipment are not available but probably account for only a small share of the total funding. For example, UNDP allocates about two-thirds of its budget for expert advisory services - long and short term; the balance is for training and equipment.

In summary, despite the lack of complete and consistent data on TC, the available data make clear that TC is an important part of development aid and a major resource for the LDCs. The figures also suggest a substantial LDC dependency on foreign expertise. Because of this scale of TC involvement in the development programs of the LDCs, the effectiveness of TC is particularly important for LDC long term development. What is the role of TC in national development? What are the concerns about its effectiveness? What actions can donor and LDC governments take to improve the performance of TC projects? These topics will be discussed in the next two sections.

II.

CREATING NATIONAL MANAGEMENT, TECHNICAL, AND INSTITUTIONAL CAPACITIES

Studies of economic development place institutional and human capacities as pivotal factors in determining the relative success of national development. The diversity of institutions and the richness of knowledge of the professional community and the general population stand out as central in economic and social growth. The people, and the institutions they create and manage, are the active agents in the development process generating and using the otherwise passive capital and natural resources available to them. Quality, relevance, and commitment to development are the essential characteristics of success and the criteria for measuring performance in the achievement of development goals.

Over the past several decades, as well as in earlier periods of history, those countries which have demonstrated the most rapid advancement are those which have concentrated on the development of their human and institutional capabilities. They have not necessarily been richly endowed with natural resources. But their focus on their human and institutional capabilities has enabled them to seek out, aggressively and selectively, the more advanced and relevant technologies as well as material and financial resources in the world and assimilate them into their economies. And in time, they have developed the capacity to generate themselves an increasing proportion of the technologies they require. The capacity of a nation to use science and technology to achieve developmental objectives lies at the heart of the processes of economic and social change and modernization.

It is in this context that the role of technical cooperation can be addressed. Do the technical and training services provided by assistance programs contribute to the advancement of LDC professional and institutional capacities? Do they contribute to building the essential base of knowledge that LDC populations require for productive employment and an improved quality of life?

The coming decades call for rapid advancements in building the LDCs' human and institutional capacities. The complexities and magnitudes of the technological, economic, and social issues ahead accent the critical importance of accelerated attention to a new generation of professional and institutional development. Building on decades of achievement, in which TC has had a part, the LDCs and their donor counterparts now have the opportunity to move ahead with these basic dimensions of their development. TC is an important instrument for this task in capacity building. What have been some of the main issues in its effective use?

A. The Effectiveness of Technical Cooperations: Some Issues

Evaluation reports and discussions with development practitioners bring out a number of broad concerns with the effectiveness of TC programs in the LDCs and in developing countries, generally. There is an unease about whether the results are commensurate with the very large expenditures on TC activity. With the high levels of funding and large numbers of foreign experts in their countries, the LDCs could expect that the results in development achievements would be more significant in creating the professional manpower and institutional capacities they require.

Studies undertaken in several of the LDCs in Africa, within the UNDP funded project "National Technical Cooperation Assessments and Programme (NaTCAP)", raise questions about the effectiveness of TC, particularly in relation to its contributions to capacity building and the transfer of technology, dependency on foreign operating personnel, and donor domination of the TC project process. The Nordic Report on "The Effectiveness of Technical Assistance Personnel" states that after "looking at 900 man years of assistance we must conclude that the institutional framework that should lead to a transfer of knowledge was non-existent or crippled... In sum, the impact does not stand in any favorable relation to cost", although the report also pointed out the useful contributions of technical assistance personnel in operating roles. (Nordic, 1988 .p.ii) A German Report "Learning from Mistakes, Nine Years of Evaluating Project Reality, Findings and Conclusions", while generally positive about TC project contributions, notes that the "sustainability of project success is still inadequate". The OECD/DAC's recent discussions on Technical Cooperation point out the "persistent and continuous need for institutional development and the individual assessments made by various agencies (UNDP, World Bank, and other donors) showing disappointing results of TC...." While these reviews apply to TC, generally, in all developing countries, they are distinctly relevant to the more vulnerable LDCs.

These reports also bring out the general observation that LDC and donor economic and social policy environments, within which TC projects operate, are fundamental to effective TC. If the social and economic incentives for development are badly distorted and create inefficiencies, directed towards narrow or corrupt ends, and are insensitive to the broader development interests of society, TC projects will not flourish nor have beneficial and lasting impacts. Accepting that these policy issues are being addressed, several considerations remain that have a direct bearing on TC effectiveness.

Creating Permanent Institutional and Human Resource Capacities

A major part of TC expertise is allocated to filling operating positions. While these personnel may be performing their operational functions satisfactorily, they are not giving adequate attention to the longer term tasks of building LDC institutional and individual capacities. Counterpart development is not working. Training activities are slighted. The demands on expatriate operating personnel, such as teachers, medical staff, managers, technical staff, to get the work done divert their attention from developing individual and institutional capabilities.

This situation reflects the classic problem of the conflict between short and long term objectives, which are evident in many development projects. The reasonable desire for early and tangible accomplishments limits the time and interest in developing capabilities for carrying a program forward over the long term. When new projects are started in situations where there is little existing LDC management and technical capacity, it is difficult to create this capacity while carrying out operational duties. Unless the capacity building objective is clear and up front in the project design and in participant understandings (not necessarily the case with many TC activities), it will not be addressed until, suddenly towards the end of the project life, the participants realize that something is required to sustain the program after the TC project is terminated.

Evaluations of infrastructure projects, when focused on the question of sustainability, have frequently pointed out that insufficient attention had been given to building sustainable institutions to operate and maintain these investments. The successful conclusion of construction and positive determinations of rates of return at project completion may obscure the institutional weaknesses which tend to show up after the technical support, provided during implementation, has been withdrawn. Technical personnel, who are necessary for the planning and construction stages, are not necessarily the ones most able to assist with institutional issues.

Problems of building institutional and human resource capacities also stem from the deterioration in LDC working environments. Inadequate pay and support services, particularly in public service positions, weak management, and the lack of motivation to maintain quality in performance standards work against efforts to strengthen local capacities. High turnover rates, the lack of counterparts, and the loss of trained nationals to other countries and organizations are serious manifestations of these problems. In these circumstances, the use of externally financed personnel is attractive to managers under pressure to get a job done. A self-defeating process is perpetuated, i.e. limited attention to capacity building, weak incentives for staff development and retention, and thus, continued dependence on expatriate staff to meet operational duties who have little time for staff development.

Quality of TC Personnel

A second concern is with the quality of TC personnel. While as a rule proficient technically, TC personnel are used for a variety of tasks for which they may not be equipped such as handling policy, institution building, and training tasks along with their technical and operating responsibilities. Some may be able to join these several functions successfully; many are not prepared to do so. Often specific work objectives are not spelled out and standards of performance specified. Problems of quality are also evident in the TC personnel's lack of knowledge of local conditions and insensitivity to local cultures which combine to impede effective and efficient performance.

Quality in TC personnel is also affected by a lack of access to state-of-the-art knowledge of technologies, development processes, and development experience - of what works. The combination of demanding workloads and isolation from easy access to the experience of others and to new developments weakens the effectiveness of individual and institutional participation in development programs. The rapid pace of change in development circumstances and relevant new technologies require new modes of information exchange.

Inadequate Use of Local Resources

A common complaint from the LDCs is that capable nationals are often not being employed in country development programs. LDCs have weIl educated and competent professionals who are being by-passed in favor of "imported" expertise. Yet in some countries, the percentage of unemployed university graduates is high and growing. LDC governments and donors may be, at times, too quick to bring in outside expertise without exploring the LDC capabilities available at home or that could be attracted to return. Needs assessments, if undertaken at all, tend to ignore these local capabilities.

This issue of by-passing individual expertise, available locally, is also evident in the tendency to avoid using national institutions and firms in favor of outside organizations. One of the best ways to develop local capacities is to put them to work on development tasks supported by international technical services, if necessary.

Closely associated with this issue is the growing recognition that old patterns and forms of TC are becoming less appropriate. With the evolution of LDC institutional and individual expertise, new modes of technical collaboration are required. A failure to be sensitive to this changing condition can lead to resentments and controversies that damage TC effectiveness and to the loss of opportunities for productive interchange on development issues.

Design and Implementation of TC Projects

It is a common statement in project evaluations that TC project objectives are not well defined, too diffuse, over-ambitious and not linked to government programming and budget processes. Often key participants are not in agreement on objectives and fail to sort out differing goals and interests. Some argue that the traditional TC project is too narrowly defined and bounded by objectives too limited to be an effective development instrument. The project framework tends to isolate the project's activities from interacting with related development processes unless it is structured and carried out as part of a sector or sub-sector strategy.

During implementation TC projects are often poorly executed. Delays in the availability of experts, inadequate or no TORs, weak supervision, insufficient coordination, little or no monitoring and evaluation are among the more frequently cited problems. Lack of LDC participation in the selection of TC experts and firms is also a common complaint. Similarly training programs are not always carefully tied in with capacity building objectives, may not be technically suitable, and are poorly timed to coincide with TC experts' availability.

The provision of equipment and commodities under TC projects is often cited as an area of weakness in project design and implementation. Lack of needs assessments, tied procurement, lack of standardization, shortages of spare parts, poor maintenance, and, particularly important, the absence of funding for commodities and equipment after donor financing ends are among the frequently reported issues.

Management of TC Programming

Many critics of TC express the view that the choice of TC projects and technical services is supply driven, i.e. determined by donors rather than guided by well defined priorities determined by LDC development objectives. Donor agencies, of which there are large number in each LDC with special interests, are looking for opportunities to promote these interests; they can usually find an LDC organization interested in a joint program whether it is a priority of not. On the other hand, donor initiative can be important in identifying development problems, opportunities, and approaches.

At the same time, the volume of TC and the number and diversity of projects and donor procedures is overwhelming LDC government abilities to coordinate and manage. Many LDC governments do not have the staff and organizational arrangements to coordinate and guide the abundance of TC resources available. Too much time of key government leaders is absorbed in numerous meetings with study and design teams keeping them from their primary management responsibilities. The consequence is an uncontrolled growth in the

number of projects and added strains on government resources leaving some activities under-nourished and inadequately managed.

These issues may reflect a lack of balance in the respective roles of LDC and donor participation in deciding on TC allocations. More leadership from LDC governments is called for. Also policy and strategy frameworks are needed for guiding decisions and promoting discipline to adhere to agreed priorities; without them, the proliferation of unfocused activity will continue and be stimulated by any availability of increased resources. The increasing attention to aid coordination arrangements reflects, in part, this concern about the proliferation and overlapping of TC programs.

B. Building Sustainable Development Programs

The common thread that runs through these several concerns about TC effectiveness is the need for a clear understanding and agreement among donors and LDC leaders on what is required to build sustainable development programs. Sustainability is a key objective. Where the long term objective of program sustainability becomes the guiding criteria for effective programs, the orientation of project design and technician participation changes. Assumptions about conditions supportive of successful development become more important. Project objectives and technician roles are more sharply defined. Commitments more firmly established. Constituent support is sought. Institutional resource requirements in staff, funds, and managerial leadership are identified. With sustainability a key guide, then, four programming actions stand out as essential.

The first, and most important, of these essential actions is having in place a well articulated statement of priorities. This statement should be a succinct presentation of objectives developed through a strategic planning process based on needs assessments and involving the principal participants and beneficiaries. The aim is not to produce a detailed planning document but a precise statement of goals with basic quantitative and qualitative (including capacity building) goals. Such a process will help to create a consensus on priority program requirements and establish commitments to these goals. This statement of priorities will need to be based on well maintained and comprehensive statistics on TC currently active in the country.

Second, the design process should be shifted from narrowly defined TC projects to sector and sub-sector programming, in which the lead LDC institutions and interested donors join together in policy definition, program design and identification of discrete TC activities. Such a process will help identify local capabilities and needs and guide decisions about what TC assistance will be welcome and what TC should be terminated or refused. The design process should give greater attention to institutional analyses, determinations of needs, modest - and sequenced - objectives, more precise TORs and training plans, and carefully planned mixes of

long term and short term expertise - all with capacity building firmly in mind.

Third a collaborative monitoring and evaluation program - LDC agencies and donors together - should be established drawing on recent developments in simplified management information systems and evaluation techniques. Part of the problem with evaluating TC relates to the lack of clearly defined objectives for much of the TC undertaken or, in dynamic situations, the lack of a continuous process for redefining these objectives in the light of new learning. Despite these difficulties, there is much that can be done to obtain a better understanding of what assistance programs are contributing to development - about their efficiency, effectiveness, impact and sustainability. The accent in this monitoring and evaluation should be on a learning process among the participants as development activities progress.

Fourth, the LDC will need to have an effective TC management and coordination capability as part of aid coordination generally and closely tied in with the government's investment programs and budgets. This central capability would be responsible for maintaining the data base on TC, coordinating proposals and design processes in relation to national priorities and other donor activity, promoting capacity building strategies in TC projects, and ensuring the adequacy of monitoring and evaluation plans.

The underlying consideration in building sustainable programs - cutting across all sectors and programs - is the importance of aiming for excellence and relevance in institutional and individual expertise - LDC and donor. To achieve excellence and relevance requires:

- the commitment of political leadership - LDC and donor - to promoting the goals and priorities of development and to creating political and socio-economic settings which value and facilitate development;

- well defined and practical development objectives for programs letting quantity follow from an emphasis on quality;

- the advancement of managerial leadership capable of shaping development values, mobilizing resources and participation, and focusing on results;

- building on and revitalizing LDC expertise - individual and institutional - with sharpened or redefined missions that directly relate to the priority development objectives of the country;

- quality TC personnel with broad capabilities, well designed and job focused training programs, and ready access to state-of-the-art information on development

technologies and processes;

- rigorous LDC led evaluations of program performance as a learning process.

Given these issues of effectiveness, suggested programming actions, and underlying considerations related to TC in development programs, what specific actions can LDC governments and donors take to improve the performance and impact of TC programs?

III.

IMPROVING TECHNICAL COOPERATION PROGRAMS

Measures to improve TC programs call for separate actions by the LDCs and the donors as well as collaborative undertakings. The guiding principle in these actions is the importance of building self-sustaining institutional and human resources capacities.

A. Actions by LDCs

1) Taking the Lead

The LDCs have an important responsibility for taking the lead in improving TC in their country development programs. This responsibility involves decisions on the allocation of TC resources in conformance with sector priorities. It also includes decisions about the types of TC services needed and the effective use of these resources in the building of national human and institutional capacities. Managing the flow of TC resources, as an integral part of LDC government investment plans and budgets, calls for a well structured aid coordination unit and a national policy on the use of TC. Some of the LDCs have these units and policies, but they may not be sufficiently developed to provide the requisite leadership consistent with the volume of TC assistance being provided. The key action is to strengthen capacities to take the lead.

2) Defining Programmes and Policies for Technical Cooperation

It is important that LDC Governments define a strategy and design programmes and policies for the use of TC resources. It is the opportunity for the LDCs to specify goals and priorities for human resources and institution building and how TC should be applied to achieve them, in effect, how to move from dependency on foreign financed experts to a condition of professional collaboration. Such a strategy defines the relative importance of TC funding for long term operations staff, short term advisers and consultants, the appropriate role of training and the efficient and sustained use of TC related equipment.

In support of this action the National Technical Cooperation Assessments and Programmes (NaTCAP) process is being used by a number of LDC governments and is under consideration by others. The UNDP, at the request of these governments is assisting with the implementation of the NaTCAP process, but leadership lies with the LDC governments themselves. In Malawi, for example, the Government has assigned one of its senior officials as chairman of the NaTCAP Task Force, appointed a national coordinator, and formed a number of working groups in specific sectors and for such aspects of TC activity as data collection and analysis, TC management, and defining the role of TC in human and institutional capacity building. Where LDC governments are taking steps along the lines of the NaTCAP, with or without UNDP involvement, they are

strengthening their ability to take the lead in defining the selection and use of TC resources. (see UNDP's "Development in the 1980s and Proposals for the 1990s" for details on the NaTCAP process.)

3) Strengthening Monitoring and Evaluation Capabilities

Many of the LDC governments are "building into" their sector development programs and central planning units the capacity to monitor and evaluate their investment activity. While often associated with external assistance, such M&E capabilities are part of sound management practices whether donors are involved or not. Monitoring and evaluation activity includes tracking the implementation and effects of individual TC projects, the oversight of sector and national development trends, and assessments of the impact of investment programs after the investment period ends. An up-to-date data base on on-going TC activity is an essential base of information for these monitoring and evaluation activities.

Some of the main conditions for successful LDC monitoring and evaluation systems include:

a. Close links with the information requirements of managers at all levels of responsibility;

b. Attention to objectivity and fairness, participation, openness and independence in evaluation operations;

c. The timeliness, relevance and usefulness of evaluation products;

d. Practical and effective means for the dissemination of evaluation findings;

e. Well-formed management information systems based on practical, cost-effective techniques of data collection and analysis.

The OECD/DAC is in the process of developing guidelines on the evaluation of TC which should be helpful to donor and LDC project managers.

4) Providing staff incentives

Although severe budget constraints may limit LDC action, LDC government policy and practice aimed at attracting and holding high quality nationals in positions of technical and managerial leadership is fundamental to the achievement of TC objectives. The local incentive system for LDC nationals working in the public and private sectors has a powerful influence on whether the beneficial results of TC are maintained and advanced. Well defined assignments in dynamic organizations, relatively adequate pay scales and benefits, advancement by merit, professional association and

recognition, access to essential "tools-of- the-trade" are all parts of an incentive system for encouraging highly trained and skilled personnel to return from training or stay on the job. The absence of these incentives can only perpetuate a dependence on TC.

B. Actions by Donors

1) Modifying Donor Policies and Practices

The donor community has a parallel responsibility to that of the LDCs for improving TC. Actions by donors call for addressing many of the issues about the quality of TC raised in the earlier section on the effectiveness of TC. These actions include, for example:

- Greater sensitivity to LDC priorities and the use of LDC professional capabilities;
- More attention to building LDC capacities so that expatriate expertise can be withdrawn sooner than later;
- Assurances that technicians are not only technically qualified but also skilled in the art of transferring knowledge and skills and see that aim as central to their assignments;
- More carefully tailored training programs tied to specific institutional objectives;
- Greater care in the selection of TC related commodities to fit local capacities to operate and maintain.

For those LDCs employing the NaTCAP process, donors can be helpful in facilitating its application and responding to the guidelines it establishes. Donors can also orient their own evaluation activities in ways that will reinforce the creation of LDC evaluation capacities.

2) Increasing and sustaining TC resources

For some LDCs, the volume of TC resources may need to be increased or continued over longer periods until local resources are available to sustain key development organizations such as research institutes, university programs, and social services. Such extensions may require reorientations in the forms of TC support such as, over time, fewer long term operating staff and advisers, more short term advisers, and greater proportions of TC funding for training, commodities and related operational costs.

C. Collaborative Actions by LDCs and Donors

1) Supporting TC coordination arrangements

Various coordination arrangements have been set up. They provide important opportunities for donor and LDC governments to cooperate on addressing the issues of effectiveness and to work out together solutions for the long term application of TC resources. The UNDP sponsors Round Tables and The World Bank Consultative Groups. There are now thirty-four of these arrangements. Local coordination meetings on TC programs, in general, or for specific sector programs are also common in the LDCs.

Technical Cooperation specifically figures on the agenda of Round Table Conferences and Consultative Groups, and for that purpose a TC discussion paper is normally presented. For Consultative Groups, it is agreed that UNDP has the responsibility for assisting the Government with the presentation of TC issues.

2) Identifying strategic points for TC resources

The Working Groups of the Meetings of Experts on the UN Conference on the LDCs have identified several areas of central importance to LDC development prospects. Implicit in most of these issues is the contribution of TC and the key role it can play in strengthening LDC performance. These areas include such priorities as managing the national economy, human resources development (population growth, education, science and technology, women in development, local participation, entrepreneurs), agriculture (appropriate technologies, research, inputs, policies), early warning systems, environment and natural disasters, and, in general, institutional infrastructure (management and administration, information systems and services). While these topics suggest a broad agenda of action, LDCs and donors working together can increase TC effectiveness by identifying within each area those strategic points of action on which to concentrate TC resources for the achievement of the most beneficial and sustainable development impact.

3) Improving the statistical and performance information on TC

The UNDP and OECD/DAC are collaborating on the statistics on Technical Cooperation programs. This work should be continued. At the same time, donors and LDCs should collaborate on ways to obtain more systematic information on the performance and impact of TC and obtain the results of evaluations for providing lessons learned for the benefit of the development community as a whole. Additional measures will be required for sharing this information to help donor and LDC experts keep up-to-date on development technologies and practices.

IV.

SUMMARY CONCLUSIONS

Four conclusions stand out as a general summing up of some of the main points in this paper:

1. A very substantial proportion of external assistance to the LDCs is being spent on TC activities with large numbers of foreign experts working in LDC countries. The scale of activity in some countries is extraordinarily high. Along with the growing appreciation of the large volume of TC is a growing unease about the effectiveness of TC. Questions are being raised as to whether the results are commensurate with the investment.

2. The focus of this unease is on issues of the quality of TC such as weaknesses in the definition of goals; weaknesses in building individual and institutional capacities; a preoccupation with operational tasks and short term outputs; tendencies towards a proliferation of TC activity; weaknesses in the quality, timeliness, and appropriateness of TC expertise, training and equipment; donor driven activities identified to fit donor interests. The evidence of these weaknesses should not obscure the fact that a great deal of very beneficial work is being carried out. A history of LDC development would cite many successes in all fields resulting from TC programs.

3. Increased attention needs to be given to accenting the quality, the results and impact of TC activity. While additional resources may be required, they will achieve little of lasting effect unless LDC and donor participants give more attention to what is being accomplished over the long term. The quality of key national institutions and LDC participation is central to the successful achievement of economic and social growth and the beneficial use of financial aid now being provided to the LDCs. A renewed emphasis on institutional development and LDC capacity building is particularly important given the increasing complexity and urgency of the development problems ahead as a consequence of rapid population growth and related large scale unemployment and environmental degradation. The identification of strategic points for the use of TC resources in the sectors presented in the Report of the Experts Meetings for the UN Conference on LDCs will strengthen the effectiveness of TC programs and reduce costly proliferation.

4. Both LDC and donor governments have separate, and joint, responsibilities for improving TC performance. LDC governments will need to strengthen their management of TC and provide greater leadership in relating TC to national priorities and budgets. Donors will need to consider appropriate increases for specific countries, and help to ensure that the TC they provide is of the highest quality. National assessments of TC and collaborative

arrangements for monitoring and evaluating TC programs, which join LDC and donor participation, need to be a given early and vigorous attention. Aid coordination arrangements in Round Tables, Consultative Groups, and local coordination meetings can be instrumental in facilitating agreement on ways to improve the contributions of TC to LDC development.

TABLE I: LEAST DEVELOPED COUNTRIES:TECHNICAL COOPERATION AID 1971-1987

COUNTRY/ TC GRANTS $million	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
AFGHANISTAN	24.1	24.3	24	21.5	25.1	20.1	27.9	31.1	37.8	21.8	14.8	13.9	15.2	12.4	15.4	13	29.3
BANGLADESH		10.4	11.7	29.6	58.2	62.4	26.3	99.7	148	158.9	147	133.1	176	158	168.8	158	164.4
BENIN	10	8.3	10.2	12.4	20	16	13.4	16.9	20.4	25.9	25.1	27.9	25.5	28.1	30.3	38.4	135.5
BHUTAN																10.6	9.9
BOTSWANA	4.8	4.5	7.8	9.5	13.7	15.2	17.9	23	36.3	47.5	48	42.8	40.5	34.8	36.9	43.4	49.7
BURKINO FASO	9.5	12.8	15.3	19.5	32.5	37.8	37.8	49.1	60.7	73	72	73.7	65.2	71.4	69.7	96.2	99
BURMA	5.8	8.3	8	12.2	15	17.4	14.7	17.7	30.9	31.1	38.7	41.8	36.5	37.8	46.8	54.1	55.4
BURUNDI	11.4	13.6	15.5	17.1	23.1	22.7	25.4	30.4	35.7	45	44.2	46.8	43.3	42.7	45.7	53.6	5[illegible]
CAPE VERDE														17	19.1	24.5	27.1
CAR	8.3	12.2	12.1	12.9	19.2	19.3	20.5	24.6	32.9	34.1	33.6	31.2	28.9	38.5	34	45.8	49.1
CHAD	12.3	15	20.1	19.6	25.3	21.9	24.6	29.2	21.4	11.9	16.8	15.3	21.7	18.8	42.6	46	51.8
COMOROS	6.4	3	8.6	13.4	7	2.2	2.3	1.3	2.9	7	10.1	9.6	9.9	9.4	11.1	13.6	19.4
DEM. YEMEN	3.4	4.7	4.9	7	9.1	11.3	10.5	10.8	7.9	11.6	12.6	14.8	14.3	9.9	12.5	8.6	8.7
DJIBOUTI	8.1	5.1	9.6	13.7	11.1	14	15.2	14.3	19	27.8	29.8	30.8	29.3	29.8	29.7	45.5	37.8
EQUAT GUINEA														6.7	6	7.8	6.6
ETHIOPIA	20.9	22.2	28.5	34.6	33.3	31.7	30.3	26.5	29.2	44.2	63.9	53.1	63.6	80.9	104.2	116	146.3
GAMBIA	1.1	1.6	1.9	2.1	2.6	4.3	3.2	6.8	9.6	12.7	13.8	17.4	15.8	14.8	17.9	32.5	21.4
GUINEA	4.2	1	1.1	1.3	3.2	5.4	5.9	10.3	11.1	18.7	21.4	20.5	14.4	17.9	19.9	26.5	35.5
GUINEA-BISSAU								6.7	9	12.1	12.7	15.2	16.1	11.8	14.9	22.5	27
HAITI	3.6	4.7	7	6.5	11.8	13.5	12.3	20.5	24	32.3	32.8	34.1	31	33	41.7	51.5	46.5
KIRIBATI								3.6	3.4	5.5	4.5	5	4.4	3.7	4.9	5	7.9
LAOS	41.7	35.9	42.3	29.6	14.9	4.4	5	11.8	12	14	13.3	11.3	10.7	12.3	13.8	17.9	20.8
LESOTHO	2.8	3.2	5	6.5	8.7	11.9	12.8	16.3	19.9	23.6	31.2	32.3	34.7	34	31.3	39.1	38.8
MALAWI	9.8	11.1	11.6	14.6	16.3	17.3	17.2	24	30	36.4	38.1	37.2	34.7	39.7	34.9	44.8	56
MALDIVES																2.9	4.7
MALI	9.2	11.9	12.9	18.9	24.4	23.1	25.5	35.4	49.5	76.9	63	55	52.8	59.9	61.1	89	86.6
MAURITANIA	4.6	6.4	7.8	10.6	11.4	13.1	13.6	18.6	24.5	28.8	37.7	33.7	32.6	31.3	35.9	43.8	47
MOZAMBIQUE				0.3	4.1	7.2	12.3	26.9	33.2	37.8	46.3	49.8	43.8	47.1	50.7	69.9	72.8
NEPAL	10.9	10.3	12.5	14	24.6	20.5	26.9	30.6	38.1	50.5	52.7	63.8	68	68.4	70.3	74.8	84.4
NIGER	12	14.5	14	24.4	29.1	27.7	29.9	38.4	47.3	62.1	59.2	68.3	60.8	61.1	75.6	92	93.7

SOURCE: OECD GEOGRAPHIC FLOWS: 1978,1982,1984,1988,1989

TABLE I: LEAST DEVELOPED COUNTRIES:TECHNICAL COOPERATION AID 1971-1987

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
RWANDA	13.7	16.2	19.3	23.4	31.5	32	41	42.8	50.9	54.5	53.2	49.6	53.8	50.1	60.9	66.4	76.7
SAOTOME/PRINCIPE																4	3.3
SIERRE LEONE	4.9	4.2	5.6	4.2	7.8	10.4	10	13.2	14.9	21.4	21.7	21.3	19.2	19.4	22.2	29.6	28.4
SOMALIA	10.2	9.7	12	12.7	19.4	15.9	19.1	21.5	32.1	92.9	103	92	114	107	131.6	160	146.4
SUDAN	6.1	21.6	19.2	15.5	28	30.9	37.5	60.3	69.1	102.4	132	117.9	128	122	203.8	161	147.3
TANZANIA	23.8	34.7	41.3	47.6	60.2	76.7	80.1	106	138	172.6	176	180.7	174	139	141.4	163	186.1
TOGO	9.1	11.1	13.3	14.8	17	16.8	18.8	21.8	25	28.9	30.4	30.3	27.5	29.9	30	42.3	44.3
TUVALU														1.4	1.5	1.8	2.6
UGANDA	17.8	16.1	11.9	7.9	9.1	8.4	7.5	12	16.4	21	33.8	29.5	34	32.2	36.7	49.9	56.8
VANUATU								2.7	22.4	24.7	17.2	16.1	16	13.1	12.3	15.6	15.5
W. SOMOA								6.8	6	9.8	10.8	7.6	7.3	6.9	7.6	8.2	13.3
YEMEN ARAB REP.	3	4.8	6.5	9.9	16.8	15.5	25	32.8	39.5	50.3	60.6	64.7	59.9	61.5	56.4	75.7	77.9
TOTALS LDC TC	313.5	363	421.5	487.8	634	647	670	944	1209	1535	1622	1588	1623	1613	1850	2165	2383
TOTAL@1986 PRICES & EXCHANGE RATES	923.1	962	966.7	1021	1148	1139	1083	1311	1516	1756	1925	1924	1971	2001	2271	2165	2081
%INC/DEC PRIOR YR.		4.2%	0.5%	5.6%	12.4%	-0.8%	-4.9%	21.0%	15.6%	15.8%	9.6%	-0.1%	2.5%	1.5%	13.5%	-4.7%	-3.9%
DEFLATOR1986 base	33.96	37.8	43.6	47.77	55.2	56.8	61.9	72	79.8	87.39	84.3	82.55	82.3	80.6	81.46	100	114.5
AVER 71/79	1119																
AVER 80/87	2012	79.8%															
TOTAL ODA (net disb	2266	2787	3482	4037	6423	5984	6313	7008	7517	8096	8092	8929	8603	9038	10379	9681	9445
TC AS % TOTAL AID	41%	35%	28%	25%	18%	19%	17%	19%	20%	22%	24%	22%	23%	22%	22%	22%	22%
TC TOTAL ALL DEVELOPING COUNTRIES				12035													
LDC TC % TOTAL TC				20 %													

SOURCE: OECD GEOGRAPHIC FLOWS: 1978,1982,1984,1988,1989

TABLE II: LEAST DEVELOPED COUNTRIES: TOTAL ODA (net disbursements)

TOTAL ODA (net disbursements) (all sources combined)	1971 $million	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
AFGHANISTAN	47.4	56	57.1	31.7	75.2	78.5	101	101	107.8	32.2	23.2	9.3	13.5	6.7	16.8	2.3	45.2
BANGLADESH	15.4	223.8	422	487	1018	532	766	990	1161	1283	1104	1341	1049	1201	1152	1456	1637
BENIN	29.3	20.1	26.6	33.2	54.4	54.5	49.3	61.1	84.6	91.1	81.6	80.6	86.4	77.6	95.8	138	135.7
BHUTAN	0.1	0.2	0.5	0.6	2.1	3.2	2.9	3.2	5.8	8.3	9.8	11.3	13	17.9	24.1	40	42
BOTSWANA	17.7	31.5	36.6	36.6	51.3	47.6	47.5	69	99.7	106	96.9	102	104	103	96.5	102	154.2
BURKINO FASO	28.8	34.4	56.9	90.6	89.1	84.1	110	159	198.4	212	217	213	184	189	197.4	284	283.1
BURMA	40.9	44.4	70.8	67.6	58.2	71	102	274	363.7	309	283	319	302	275	355.7	416	364.6
BURUNDI	21.8	25.9	26.9	33.5	48.1	44.5	48.2	74.5	94.8	117	122	127	140	141	142.6	188	192.6
CAPE VERDE					8.8	24.9	27.2	35.7	33.4	64.4	50.3	54.9	59.9	63.9	69.7	109	86.2
CAR	15.6	25.6	25.7	35.5	56.8	38.1	42.1	51.3	83.6	111	102	89.7	92.9	114	104.3	139	173.3
CHAD	30.6	30.9	42.2	65.2	65.2	62.3	83.1	125	85.6	35.3	59.7	64.7	95.3	115	181.7	165	198.3
COMOROS	8.8	10.2	17.6	27.3	21.7	25.3	12.2	12.8	16.7	43.3	46.6	38.9	38.2	41	47.6	46.3	53.1
DEM. YEMEN	4.4	5.6	7.5	10.3	51.5	170	119	91.4	76.0	100	86.9	143	106	103	113.6	71.6	79.9
DJIBOUTI	10.6	13.4	19.5	29.1	34.4	28.1	46.2	100	23.2	73.1	64.5	58.9	65.6	102	81.4	115	91.6
EQUAT GUINEA			1	0.6	2.2	0.4	0.9	0.6	2.7	9.3	10.2	14	11.1	15	17.2	21.7	42.7
ETHIOPIA	47.3	47.6	66.7	120	135	141	116	140	174.4	212	245	200	339	364	714.8	636	635
GAMBIA	3.6	5	6.5	8.8	8.1	11.9	21.5	35.5	36.6	54.8	68.2	47.6	42	53.6	50.1	101	103.5
GUINEA	9.6	4.8	11.3	8.9	15.2	12	22.4	60.3	60.8	89.6	107	90.1	67.5	123	119.2	175	214
GUINEA-BISSAU	0.2			1	18.6	22.5	37.7	50.1	52.7	59.5	65.2	65.2	64.2	55.2	57.7	71	104.4
HAITI	6.2	6.8	8.2	14.2	59.3	71.8	87.6	92.8	92.6	105	109	158	190	286	272.6	284	258.4
KIRIBATI					5.7	4.1	6.2	10.7	9.1	19.2	15.3	15.1	16.8	11.9	12	13.4	18.4
LAOS	72.4	66.8	75.9	60.1	38.8	28.5	32.4	71.8	54.1	40.9	35	38.3	29.7	34.1	37	48.2	58.9
LESOTHO	16.7	14.1	14.2	20.9	30.1	30.1	38.8	50.1	64.2	94.4	104	93.4	108	101	94.2	87.8	108.4
MALAWI	31.6	36.2	29.7	41.7	63.8	63.3	79.4	98.5	141.8	143	138	121	117	159	113	198	280.6
MALDIVES	0.8	0.6	0.6	0.6	3.2	4.4	2.6	8.2	6.6	21.4	12.8	5.4	11	5.6	9.2	16.3	19.1
MALI	30.4	38.3	70.4	104	145	89	113	163	196.5	267	230	210	215	320	379.9	372	364.5
MAURITANIA	12.2	9.1	25.2	46.8	58.8	168	160	223	172.3	176	214	187	176	175	206.7	221	177.7
MOZAMBIQUE	0.1	0.1	0.1	0.7	21.6	71.5	80.3	105	145.8	169	144	208	211	259	300.1	421	649.2
NEPAL	23.9	30.2	35.4	32.3	45.7	50.2	80	76.8	136.8	163	181	201	201	198	236.3	301	344.6
NIGER	38	43.1	70.4	136	141	129	96.8	157	174.0	170	193	258	175	161	304.5	307	348

SOURCE: OECD GEOGRAPHIC FLOWS...: 1989,1988,1984,1982,1978

TABLE II: LEAST DEVELOPED COUNTRIES: TOTAL ODA (net disbursements)

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
RWANDA	25.2	30.1	38.9	45.6	90.8	79.3	95.9	125	148.3	155	154	151	149	165	181.2	211	242.8
SAOTOME/PRINCIPE					0.9	11.7	3.1	4.1	3.1	3.9	6.1	9.9	11.6	11.3	12.5	12.4	17.9
SIERRE LEONE	10.5	10.3	14.3	8.7	18.1	15.1	26.2	40.2	53.2	90.9	60.1	82.2	66	60.8	65.9	87.1	68.3
SOMALIA	30.7	23.7	35.7	31.9	152	109	293	211	181.2	433	375	462	343	350	353.3	511	580.2
SUDAN	10.5	37.2	42.6	54.4	289	383	231	318	570.5	583	632	740	962	622	1129	945	901.6
TANZANIA	62.4	61.3	100	155	295	268	340	424	588.3	679	703	684	594	558	486.9	681	882.2
TOGO	19.3	21.6	25.8	36.9	41.8	43	64.2	103	109.7	91	62.9	77.2	112	110	114	174	123.2
TUVALU					0.1	3	2.4	2.9	4.1	4.9	5.4	6.2	4.2	5.5	3.3	4.4	25.7
UGANDA	31.8	29.5	14.8	11.3	39	25.2	22.2	21.3	42.3	114	136	133	137	163	182.1	198	275.9
VANUATU					2.2	31	14.6	18.8	38.4	42.4	30.4	26	26.9	24.5	21.8	24.4	51
W. SOMOA				0.5	13.4	11.7	20.6	20.2	29.9	25.7	25	22.8	26.7	20.2	19.4	23.3	35.8
YEMEN ARAB REP.	14.9	14.8	20.7	39.3	178	259	262	269	272.9	472	411	413	328	326	282.9	263	349.2
TOTAL ODA	769.7	1053.2	1518	1929	3545	3400	3906	5048	5997	7075	6818	7371	7083	7285	8455	9681	10818
TOTAL @ 1986 PRICES AND EXCHANGE RATES	2266.5	2787	3482	4037	6423	5984	6313	7008	7517	8096	8092	8929	8603	9038	10379	9681	9445
%INC/DEC PRIOR YR.		23%	25%	16%	59%	-7%	5%	11%	0.1	8%	0%	10%	-4%	5%	15%	-7%	-2%
DEFLATOR	33.96	37.79	43.6	47.8	55.2	56.8	61.9	72	79.8	87.4	84.3	82.6	82.3	80.6	81.46	100	114.5
AVER 71/79	5090.9																
AVER 80/87	9032.8	77%															

SOURCE: OECD GEOGRAPHIC FLOWS..: 1989,1988,1984,1982,1978

LEAST DEVELOPED COUNTRIES: TC AS A % OF TOTAL ODA, 1987

ODA/TC %s (net disbursement (all sources combined)	ODA 1987	TC 1987	% TC
AFGHANISTAN	45	29.3	65%
BANGLADESH	1637	164.4	10%
BENIN	136	135.5	100%
BHUTAN	42	9.9	24%
BOTSWANA	154	49.7	32%
BURKINO FASO	283	99	35%
BURMA	365	55.4	15%
BURUNDI	193	51.3	27%
CAPE VERDE	86	27.1	31%
CAR	173	49.1	28%
CHAD	198	51.8	26%
COMOROS	53	19.4	37%
DEM. YEMEN	80	8.7	11%
DJIBOUTI	92	37.8	41%
EQUAT GUINEA	43	6.6	15%
ETHIOPIA	635	146.3	23%
GAMBIA	104	21.4	21%
GUINEA	214	35.5	17%
GUINEA-BISSAU	104	27	26%
HAITI	258	46.5	18%
KIRIBATI	18	7.9	43%
LAOS	59	20.8	35%
LESOTHO	108	38.8	36%
MALAWI	281	56	20%
MALDIVES	19	4.7	25%
MALI	365	86.6	24%
MAURITANIA	178	47	26%
MOZAMBIQUE	649	72.8	11%
NEPAL	345	84.4	24%
NIGER	348	93.7	27%
RWANDA	243	76.7	32%
SAOTOME/PRINCIPE	18	3.3	18%
SIERRE LEONE	68	28.4	42%
SOMALIA	580	146.4	25%
SUDAN	902	147.3	16%
TANZANIA	882	186.1	21%
TOGO	123	44.3	36%
TUVALU	26	2.6	10%
UGANDA	276	56.8	21%
VANUATU	51	15.5	30%
W. SOMOA	36	13.3	37%
YEMEN ARAB REP.	349	77.9	22%
TOTALS	10818	2383	22%

TABLE III: RANKING OF LDCS BY ECONOMIC AND AID INDICATORS

COUNTRY	TC $ PER CAP.	COUNTRY	TC % OF EXPORTS	COUNTRY	TC % OF GNP	COUNTRY	GNP PER CAP.
BHUTAN	$1	DEM. YEMEN	2%	BHUTAN	1%	ETHIOPIA	$130
BURMA	$1	AFGANISTAN	5%	DEM. YEMEN	1%	BHUTAN	$150
BANGLADESH	$2	BOTSWANA	7%	BANGLADESH	1%	CHAD	$150
AFGANISTAN	$2	BHUTAN	7%	UGANDA	1%	BANGLADESH	$160
ETHIOPIA	$3	GUINEA	8%	YEMEN ARAB REP	2%	NEPAL	$160
UGANDA	$4	MAURITANIA	12%	SUDAN	2%	MALAWI	$160
DEM. YEMEN	$4	MALDIVES	13%	HAITI	2%	GUINEA-BISSAU	$160
NEPAL	$5	BANGLADESH	15%	SIERRE LEONE	2%	MOZAMBIQUE	$170
MOZAMBIQUE	$5	TOGO	16%	ETHIOPIA	3%	LAO PDR	$170
GUINEA	$5	HAITI	18%	MOZAMBIQUE	3%	TANZANIA	$180
LAO PDR	$5	MALAWI	21%	NEPAL	3%	BURKINO FASO	$190
SUDAN	$6	SIERRE LEONE	24%	LAO PDR	3%	EQ. GUINEA	$200
MALAWI	$7	BURMA	25%	RWANDA	4%	VANUATU	$200
SIERRE LEONE	$7	UGANDA	26%	BURUNDI	4%	MALI	$210
HAITI	$8	NIGER	26%	BOTSWANA	4%	GAMBIA	$220
TANZANIA	$8	SUDAN	31%	TANZANIA	4%	AFGANISTAN	$220
YEMEN ARAB REP.	$9	CAR	32%	MALAWI	4%	BURUNDI	$250
CHAD	$10	EQ. GUINEA	33%	TOGO	5%	UGANDA	$260
BURUNDI	$10	SAOTOME/PRINCIF	34%	MALI	5%	NIGER	$260
MALI	$11	ETHIOPIA	36%	NIGER	5%	SAOTOME/PRINC	$280
BURKINO FASO	$12	BURUNDI	37%	SAOTOME/PRINCII	5%	TOGO	$290
RWANDA	$12	MALI	40%	CAR	6%	SOMALIA	$290
NIGER	$14	CHAD	43%	MALDIVES	6%	SIERRE LEONE	$300
TOGO	$14	GAMBIA	48%	MAURITANIA	6%	RWANDA	$300
SAOTOME/PRINCIPE	$15	BURKINO FASO	49%	BURKINO FASO	6%	MALDIVES	$300
MALDIVES	$17	TANZANIA	53%	CHAD	7%	GUINEA	$300
EQ. GUINEA	$17	NEPAL	56%	LESOTHO	7%	BENIN	$310
CAR	$18	RWANDA	58%	EQ. GUINEA	8%	SUDAN	$330
LESOTHO	$24	LAO PDR	69%	SOMALIA	9%	CAR	$330
MAURITANIA	$25	COMOROS	78%	BENIN	10%	HAITI	$360
SOMALIA	$26	MOZAMBIQUE	82%	GAMBIA	12%	LESOTHO	$370
GAMBIA	$27	VANUATU	91%	COMOROS	12%	COMOROS	$370
GUINEA-BISSAU	$29	WESTERN SOMOA	111%	DJIBOUTI	13%	DEM. YEMEN	$420
BENIN	$32	BENIN	112%	WESTERN SOMOA	15%	MAURITANIA	$440
BOTSWANA	$45	SOMALIA	124%	CAPE VERDE	16%	KIRIBATI	$480
COMOROS	$46	DJIBOUTI	151%	GUINEA-BISSAU	19%	CAPE VERDE	$500
CAPE VERDE	$79	KIRIBATI	158%	KIRIBATI	25%	WESTERN SOMOA	$550
WESTERN SOMOA	$80	GUINEA-BISSAU	169%	VANUATU	52%	YEMEN ARAB RE	$590
DJIBOUTI	$102	LESOTHO	185%	TUVALU	54%	TUVALU	$600
VANUATU	$103	YEMEN ARAB REP.	410%	AFGANISTAN		DJIBOUTI	$800
KIRIBATI	$120	CAPE VERDE	542%	GUINEA		BOTSWANA	$1050
TUVALU	$325	TUVALU					

SOURCES: WORLD DEVELOPMENT REPORT 1989; UNDP: S.M.A.R.T. PROFILES, 1989; OECD GEO. DIST. FIN. FLOWS 1987

TABLE IV: TECHNICAL COOPERATION BY SECTOR (1987)

COUNTRY	TOTAL (USD 1,000)	GEN.DEVELOPMENT ISSUES (%)	NATURAL RESOURCES (%)	AGRICULTURE, FOREST., FISH. (%)	TRADE, INDUSTRY (%)	TRANSPORT & COMMUNICATION (%)	HEALTH (%)	EDUCATION (%)	OTHER (%)	REMARKS
AFGHANISTAN (b)										
BANGLADESH	115,590									
BENIN	43,310	4	9	17	3	7	15	31	14	
BHUTAN (b)										
BOTSWANA	63,706	5	15	14	5	6	9	23	23	EMPLOYMENT 17%
BURKINA FASO	56,314	6	6	50	1	2	12	5	18	
BURMA (b)										
BURUNDI	59,671	3	8	31	1	8	11	16	22	SC. & TECH. 10%
CAPE VERDE (a)	34,577	7	7	41	0	20	8	9	8	
CENT. AFR. REP.	65,944	40	3	7	0	4	13	29	4	
CHAD	154,503	15	7	16	1	3	5	5	48	HUMAN SET. 34%
COMOROS	29,538	29	4	15	0	6	12	28	6	
DEM. YEMEN (b)										
DJIBOUTI	44,421	4	7	7	1	4	9	45	24	
EQU. GUINEA	30,922	16	2	24	0	8	21	19	10	
ETHIOPIA (b)										
GAMBIA	26,051	13	9	35	1	5	14	15	8	
GUINEA (a)										
GUINEA BISSAU	34,046	19	10	31	9	3	6	9	13	
HAITI	84,196	4	10	35	7	5	14	11	14	
KIRIBATI (b)										
LAOS	22,246	31	7	20	11	8	8	11	4	
LESOTHO	74,040	6	12	25	2	15	7	28	5	
MALAWI	36,070	8	3	20	9	8	25	12	15	
MALDIVES (a)	6,298	2	0	7	1	20	18	16	36	EMPLOYMENT 31%
MALI	122,622	8	10	28	1	7	15	11	20	EMERG. REL. 9%
MAURITANIA (b)										
MOZAMBIQUE (a)	112,614	21	6	25	3	16	12	7	10	

TABLE IV: TECHNICAL COOPERATION PERSONNEL BY SECTOR
(Long-Term Experts)

Country	Year	Total Number	Education (%)	Health (%)	Agriculture Forestries Fisheries (%)	Trade Industry (%)	Natural Resources (%)	Public Works Transport & Communication (%)	Other Sectors or non Class. (%)
Benin	1988	435	22	24	18	-	11 -	16	9
Burundi	1988	727	36	12	28	5	6	n.a.	13
Cape Verde	1988	85	2	12	36	-	5 -	n.a.	55
Central Afr. Rep.	1988	465	37	15	8	2	9	10	19
Chad	1988	238	16	15	24	7	2	15	21
Comoros	1988	162	44	11	14	n.a.	n.a.	15	16
Equatorial Guinea	1988	300	38	30	3	0	7	11	11
Gambia	1988	171	11	19	15	n.a.	6	5	44
Guinea	1988	643	40	9	15	1	17	7	11
Guinea Bissau	1986	489	22	31	14	-	13 -	2	18
Mali	1988	804	25	17	23	-	23 -	7	5
Mauritania	1987	846	49	21	13	0	4	n.a.	13
Mozambique	1985	3705	6	8	22	n.a.	9	13	32
Sao Tome	1988	124	44	40	9	n.a.	n.a.	n.a.	7

Source: UNDP Surveys.

TABLE IV: TECHNICAL COOPERATION BY SECTOR (1987)
(CONTINUED)

COUNTRY	TOTAL (USD 1,000)	GEN.DEVELOPMENT ISSUES (%)	NATURAL RESOURCES (%)	AGRICULTURE, FOREST., FISH. (%)	TRADE, INDUSTRY (%)	TRANSPORT & COMMUNICATION (%)	HEALTH (%)	EDUCATION (%)	OTHER (%)	REMARKS
NEPAL	97,466	8	22	23	2	10	13	8	15	
NIGER	169,640	8	19	40	1	2	7	14	9	
RWANDA	183,970	8	15	19	4	16	18	11	9	
SAO TOME (a)	11,969	2	0	51	0	9	14	21	3	
SIERRA LEONE	24,876	13	2	18	2	12	28	16	9	
SOMALIA	97,235	5	4	25	11	2	17	25	11	
SOUDAN (b)										
TANZANIA	272,489	3	8	27	14	16	16	4	12	
TOGO	46,801	18	8	28	2	3	14	16	11	
TUVALU (b)										
UGANDA	79,140	12	6	31	1	2	23	18	7	
VANUATU (b)										
WESTERN SAMOA	12,427	28	3	30	0	10	6	17	6	
YEMEN ARAB REP.	109,948	1	2	24	0	1	20	34	18	

(a) : data for 1986

(b) No recent data

Source : Development Cooperation Reports, UNDP

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